



Feeding your

baby infant formula

How to prepare infant
formula safely

This booklet is for parents who must, or have decided to, use infant formula to feed their baby. There is also a Quick reference guide in the middle that has the key points from the booklet. You can pull out the guide and leave it where you can easily see it (eg, on the fridge).

If you have not decided how you will feed your baby, it's important to discuss this with your midwife, doctor or nurse first. See the back of this booklet for more information.

The Ministry of Health recommends exclusive breastfeeding to around 6 months of age and continued breastfeeding with appropriate complementary foods until at least 12 months (1 year) of age, or beyond.

Breast milk is the best food for babies. It provides a wide range of nutrients for healthy growth and development and helps protect your baby from illness. Breastfeeding has benefits for mothers too. For more information about breastfeeding, see www.breastfeeding.org.nz or www.healthed.govt.nz

If it is not possible to breastfeed a baby (or use expressed breast milk), then an infant formula should be used until the baby is 12 months old. When prepared cleanly and correctly, infant formula is a safe and nutritionally adequate food for a baby.

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Feeding your baby infant formula

Infant formula is made for babies up to 12 months old who are not breastfed. If possible, try to maintain some breastfeeding as well as using formula.

Formula is all your baby needs until they are around 6 months old. At around 6 months your baby will probably start eating some solid foods but will continue to need formula until 12 months of age.

Choosing infant formula



Choose a formula based on cows' milk, unless your midwife, doctor, dietitian or nurse recommends a different type of formula for your baby.

Cows' milk-based formula

There are many formulas available which can make choosing one a bit confusing. Most infant formula is made from cows' milk that has been modified to make it suitable for babies.

Many formulas today contain extra ingredients, eg, 'Gold' formula. These formulas can cost a lot more and may not provide any benefit over a cheaper standard version. Special formulas are also available, such as HA (Hypo-allergenic), AR (Anti-reflux) or lactose-free formulas, but most babies don't need a special formula. These formulas should only be used under the direction of a health professional.

Infant formula from birth

Use a stage 1 formula that is suitable for newborn babies. It should say 'from birth' or '0–12 months'. Your baby can stay on this same formula when you start to introduce solid foods at around 6 months and continue on it until they are 12 months (1 year) old.

There are formulas labelled as 'follow-on' or stage 2. These should only be given to babies aged 6 months and over but are not necessary for most babies.



The labels on follow-on formula can look very similar to infant formula, so read them carefully to avoid making a mistake.

Before buying formula, check the label for baby's age and the 'use-by' date. **Never feed infant formula that is past its 'use-by' date to your baby.**

Avoid homemade infant formula

Avoid using any kind of recipe for homemade infant formula. Homemade infant formula may not provide the right nutrients for your baby. They might also contain unsafe ingredients, or could be prepared in a way that allows harmful bacteria to grow. This can lead to serious illness or even death.

Other drinks

Do not give other drinks to your baby. **Never give tea, coffee, alcohol, fruit juice, cordial or fizzy drinks to your baby.**



Unless your midwife, doctor, dietitian or nurse gives you different advice, a stage 1 'from birth' formula is the only type of formula your baby needs until they are 12 months (1 year) old.

When your baby is 12 months old, they can drink (dark blue label) cows' milk instead of infant formula.

Feed your baby safely

Powdered infant formula is not sterile, which means it may contain low levels of bacteria. These bacteria very rarely cause illness in babies when the formula is prepared and stored correctly.

Always follow the manufacturer's instructions (on the label) when preparing infant formula and the instructions in this booklet to safely:

- clean feeding equipment – see page 6
- sterilise feeding equipment (using heat or chemicals to kill germs) – see page 7
- prepare a formula feed – see page 8.

What you need for formula feeding

You'll need:



Feeding bottles and teats with caps, collars and sealing discs



A bottle brush and a teat brush



Sterilising equipment, such as a pot (shown) to boil the feeding equipment in, a steam steriliser or cold-water sterilising chemicals



A covered container to cool the boiled water in



Infant formula powder

Bottles and teats

Bottles

- Bottles with straight sides and wide necks are the easiest to clean.
- Glass bottles are easier to clean than plastic but break more easily.



Not all baby bottles have accurate volume lines on them. To check that they do, look for the standard mark EN14350 on the bottle or packaging, or take your bottles to a pharmacy to check if the bottles are accurate.

Teats

Choose teats that match your baby's age.

- Newborn babies – one hole in the tip of the teat gives a slow flow that is easier to manage.
- Older babies – more than one hole gives a faster flow.

Formula should drip from the teat at about one drop per second when tipped.

There are a range of teats available. Talk to your health professional or pharmacist about which type of teat is best for your baby.

Cleaning and sterilising feeding equipment



Newborn and young babies are at risk of infection because their immune system is not fully developed yet. You must wash and sterilise all feeding equipment until your baby is at least 3 months old. From 3 months, thorough washing and rinsing are enough.

Follow the steps below for all feeding equipment that you use for your baby – whether you are using expressed breast milk or infant formula.

Cleaning

Clean the feeding equipment as soon as possible after a feed. Feeding equipment must be washed and rinsed before it is sterilised.



A dishwasher can be used to clean feeding equipment but will not sterilise it.



1

Clean the work surfaces (bench and sink) with hot soapy water.



2

Wash your hands well with soap and water, and dry them on a clean cloth or paper towel.



3

Wash the feeding equipment in hot soapy water:

- use the bottle and teat brushes to clean the bottles and teats inside and out, making sure you get all the milk out of them
- clean any other items used (eg, bottle caps, container and container lid for storing boiled, cooled water).



4

Rinse all equipment in clean, cold running water before sterilising.

Sterilising

You must sterilise feeding equipment until your baby is at least 3 months old. There are several ways to sterilise, such as:

- sterilising by boiling
- steam sterilising
- using cold-water sterilising tablets or solution.

If sterilising by boiling



Fill a large pot with water.



Place the washed feeding equipment in the water. Make sure that everything is completely covered with water and that no air bubbles are trapped.



Put the lid on the pot and bring the water to the boil. Boil in a rolling boil for 1 minute.



Turn the stove off and keep the pot covered until you need the feeding equipment.



Keep the pot handle turned away from the edge of the stove. Keep children away from boiling water.

If sterilising by steam or with chemicals

Follow the manufacturer's instructions when using steam (in an electric or microwave steam steriliser) or chemicals (sterilising tablets or solution).

Leave feeding equipment in the steriliser until needed.

After sterilising

It's best to remove bottles just before they are used. If you remove the bottles before you need them, they should be put together fully with the teat and cap on.

Always wash your hands before touching sterilised feeding equipment, and try not to touch the inside of the bottle and the inside and outside of the teat.

Preparing a formula feed

Formula should be made up fresh for each feed. Harmful bacteria can grow in prepared formula, and the longer the formula is kept before use, the greater the risk of your baby getting sick. If you are taking your baby's formula feed out with you, see 'Feeding your baby away from home' on page 14.

Always read the formula labels carefully and follow the manufacturer's instructions.

- Check the use-by date located on the base of the formula can. **If you have formula that is past its use-by date, throw it out.**
- Make sure you have a clean surface on which to prepare the formula feed.
- Wash and dry your hands before opening the formula can.
- Always put the plastic lid back on the can after use.
- Store the formula can in a cool, dry place (eg, the pantry). **Use within 4 weeks of opening.**

Preparing safe water for formula



From birth until your baby is at least 3 months old, all water used for formula should be boiled and cooled to room temperature on the day you use it. Make sure you leave enough time for the boiled water to cool to room temperature (until it no longer feels warm) before it's needed.

1 Boil enough water to last the day.

- If you use an electric jug, boil a full jug until it turns off.
- If you use a stove top kettle, boil until it makes a loud whistle.
- If you are boiling water in a pot on the stove, let the water come to a rolling boil for 1 minute.



Pour boiled water into a sterilised container, cover and leave to cool to room temperature – **until it no longer feels warm**. Store out of direct sunlight. **Keep for up to 24 hours – throw it away after that.**

If you live in a city or a town

From 3 months of age you can use cold water straight from the tap to make formula. Run the tap for 10–15 seconds before you collect the water. If you are concerned about water quality, continue to boil and cool water until your baby is 6 months old.

If you use bore or tank water

Bore water and tank water should be boiled until your baby is 18 months old.

If you have a bore, check with your local public health unit that your water is low in nitrate. Some bore water is high in nitrate so it's unsuitable for using to prepare infant formula.

To find contact details for your local public health unit, visit the Ministry of Health website (www.health.govt.nz) and type *Public health unit* into the Search box.

Bottled water

Bottled water is not recommended as it is not sterile. Like tap water, bottled water needs to be boiled then allowed to cool before it is used to prepare formula.

Step-by-step guide to preparing a formula feed



Prepare the formula just before you feed your baby. Use cooled, boiled water if your baby is under 3 months – see pages 8–9.

Different types of formula come with different-sized scoops. Make sure that you use only the scoop that comes with the formula you are using.



1 Clean a surface on which to prepare the formula feed.



2 Wash your hands with soap and water and dry them on a clean cloth or paper towel.



3 Read the instructions on the formula can to find out how much water and how much powder you need. **Never add more or less formula powder or water than recommended. This could make your baby very sick.**



4 Pour the correct amount of safe water (boiled water that has been left to cool) from the container into a cleaned and sterilised bottle before adding the formula powder.



Use the scoop provided with the can to measure the powder. Level the powder with a clean knife, but don't pack it down. Add the correct number of scoops to the water in the bottle. **Always put the water into the bottle first, before adding the powder.**



Holding the edge, attach the teat and the collar to the bottle – avoid touching the part of the teat that will go in your baby's mouth.



Cover the teat with the cap. Gently shake or swirl the bottle until the formula is mixed well.

If you have warmed the formula, drip some of it on the inside of your wrist to check the temperature. It should feel warm, but not hot.



Feed your baby – see page 12



Use the formula within 2 hours. If there is any formula left in the bottle after 2 hours, **always throw it away.**



Bacteria can grow in formula. The risk of infection increases over time, so that's why it's important to make up a fresh feed each time your baby needs it and throw any leftover formula away after 2 hours.

Can I store prepared formula to use later?

It's best to prepare the formula just before your baby needs it.

If you have no choice and need to store prepared formula:

- prepare it in individual bottles
- store it in the bottom half of the fridge at the back (2–4°C) **for no more than 4 hours.**

Feeding your baby

It is important to always hold your baby when feeding.

Sit in a comfortable chair with your elbows, arms and back supported.

Hold your baby close to you and look into their eyes when feeding. This helps your baby to feel safe and loved.

Hold your baby in the bend of your arm – it may be more comfortable to switch arms mid-feed.

Keep your baby nearly upright and the bottle at the correct angle (see below) while you feed them – this helps to prevent ear infections caused by the formula flowing into the middle ear.



Hold the bottle:

- with enough teat in the baby's mouth to form a tight seal
- with the teat in the centre of the mouth and over the tongue
- at an angle so that the formula fills the teat and bottle neck
- firmly so that the baby can pull against it while sucking.

Winding (burping) lets your baby bring up any air swallowed during feeding.

If your baby wants to stop feeding too soon, they may need burping before they can go on feeding.

Bottle-fed babies, just like breastfed babies, know when they have had enough. Don't worry if your baby doesn't finish the bottle.



Never leave your baby lying with a bottle to suck on as there is a risk they may choke. If they fall asleep with milk in their mouth, the milk can damage their teeth.

How much formula does my baby need?

The number of feeds and the amount of formula taken at each feed varies between infants and over time. The formula can will give general guidelines about how much formula your baby may need.

Babies are usually fed on demand, so learn your baby's hunger signs. Some sleepy newborn babies may need waking up to feed. If you are worried because your baby is sleepy and hard to feed, talk to your midwife, doctor or nurse.

In hot weather or if your baby is sick, they may need extra feeds.

Warming formula

You can warm the prepared formula, but it's not necessary to do so.



Always check the temperature of warmed formula before giving it to your baby. It should feel warm, but not hot.



- Shake the bottle and drip some of the formula on the inside of your wrist (without touching the teat). Formula that feels just warm on your wrist is safe for your baby.
- Formula that is too hot or unevenly heated can cause serious burns to your baby's mouth and throat.
- To reduce the risk of your baby getting sick from harmful bacteria, **never reheat warmed or partly used feeds.**



With any warming method, prepare the formula just before warming. When the prepared formula has been warmed, use it within 2 hours and throw out any unused formula.

Information on 'How to' warm formula is available on the Ministry of Health's website (www.health.govt.nz/warmingformula).



Microwaves are not recommended for warming formula because they can overheat the formula or heat it unevenly and burn your baby's mouth and throat.

Feeding your baby away from home

Even when you are away from home, formula should be prepared just before you feed your baby.

Before leaving home

- 1** Measure the correct amount of cooled, boiled water for one feed into a cleaned and sterilised bottle and firmly place the cap on.
- 2** Put the correct amount of formula powder into a cleaned and sterilised container.
- 3** Prepare an extra bottle of water and enough extra powder (in a second container) to allow for delays.

At feeding time

- 4** Add the formula powder to the water only when your baby needs a feed.

If you are travelling by car, stop to feed your baby.

Your baby may need extra fluids on a long trip (infant formula or water), especially in summer.



If you are travelling and need to take prepared formula, don't warm it before you travel. Put the prepared formula in a chilly bin or insulated bag and use it within 2 hours. Throw away any unused formula.

For more information

If you need advice and support with breastfeeding or formula feeding, ask for help from:

- your midwife, doctor or nurse
- a Well Child Tamariki Ora nurse or ring Plunketline 0800 933 922 (24 hours)
- an International Board Certified Lactation Consultant (IBCLC)
- the La Leche League (breastfeeding advice and support only)
- a community or private-practice dietitian
- the Parents Centre.

You can also ask your midwife, doctor or nurse for *Eating for Healthy Babies and Toddlers from Birth to 2 Years Old* (Code HE1521) or read it online at www.healthed.govt.nz

Infant feeding in an emergency

For information on feeding your baby in an emergency and how to prepare for an emergency, see the Ministry of Health website (www.health.govt.nz/your-health/healthy-living/emergency-management/feeding-your-baby-emergency-babies-aged-0-12-months).

Things to consider when deciding how to feed your baby

If you have not decided how you will feed your baby, it's important to discuss this with your midwife, doctor or nurse first. The list below has things to consider before you decide.

- Breastfeeding is the best way to feed your baby.
- The cost of infant formula and feeding equipment on your household budget.
- The time involved in preparing formula compared to the convenience of breastfeeding.
- Giving infant formula to a breastfed baby will reduce your breast milk supply.
- If you decide not to breastfeed or to stop breastfeeding, it is possible to restart but it will be difficult.
- For some women, establishing breastfeeding is more difficult than for others, but with the right support, most mothers can breastfeed.

Healthy eating while breastfeeding is important, but if you are worried about the quality of your diet, don't let that stop you from breastfeeding. Breastfeeding is still the best option for your baby – see *Eating for Healthy Breastfeeding Women* (Code HE1806), available at www.healthed.govt.nz



This resource is available from www.healthed.govt.nz
or the Authorised Provider at your local DHB.

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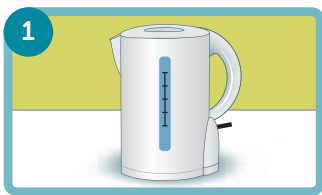
New Zealand Government

How to prepare infant formula safely



Preparing safe water for formula

Make sure you leave enough time for the boiled water to cool to room temperature (until it no longer feels warm) before it's needed.



1

Boil enough water to last the day. If you use an electric jug, boil a full jug until it turns off.

- If you use a stove top kettle, boil until it makes a loud whistle.



2

Pour boiled water into a **sterilised container**, cover and leave to cool on the bench and out of direct sunlight. **Keep only for 24 hours.**

Cleaning

Feeding equipment must be washed and rinsed (by hand or in a dishwasher) before it is sterilised.



3

Clean the work surface with hot soapy water.



4

Wash your hands with soap and water.



5

Wash all feeding equipment well in hot soapy water. Use a bottle brush to clean the bottles and teats.



6

Rinse all equipment under cold running water before sterilising.

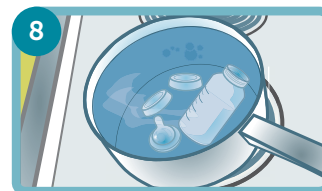
Sterilising

If sterilising by boiling



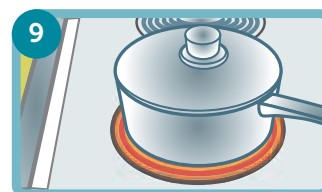
7

Fill a large pot with water.



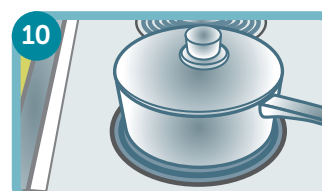
8

Place the washed feeding equipment into the water. Make sure that everything is completely covered with water and that no air bubbles are trapped.



9

Put the lid on the pot and bring the water to a rolling boil for 1 minute.



10

Turn the stove off and keep the pot covered until you need the feeding equipment. Keep children away from boiling water.

How to prepare infant formula safely



Preparing a formula feed

Prepare infant formula just before you feed your baby.



11 Clean a surface on which to prepare the formula feed.



12 Wash your hands with soap and water, and dry with a clean cloth or paper towel.



13 Read the instructions on the formula can to find out how much water and how much powder you need.



14 Pour the correct amount of safe water* into a cleaned and sterilised bottle. *See 'Preparing safe water for formula' over the page.



15 Using the scoop provided add the exact amount of powder to the water in the bottle.



16 Holding the edge, attach the teat and collar to the bottle.



17 Cover the teat with the cap. Gently shake or swirl the bottle until the formula is mixed well.



18 If you have warmed the formula, drip some of it on the inside of your wrist to check the temperature. It should feel warm but not hot.



19 Feed your baby. Always hold your baby when feeding.



20 Use the formula within 2 hours. If there is any formula left after 2 hours, throw it away.



Key things to remember

- Wash and sterilise all feeding equipment until your baby is at least 3 months old. From 3 months, thorough washing and rinsing are enough.
- Use cool water for preparing formula. Until your baby is at least 3 months old (or 18 months if you use bore or tank water), water must be boiled and cooled on the day you use it.
- Prepare the formula just before you feed your baby.
- Never add more or less formula powder or water than recommended. This could make your baby very sick.
- Throw any leftover formula away after 2 hours.